

CLAIMS:

1. A low-pressure mercury vapor discharge lamp comprising a light-transmitting discharge vessel (10),

the discharge vessel (10) enclosing, in a gastight manner, a discharge space (13) provided with a filling of mercury and a rare gas,

5 the discharge vessel (10) comprising means for maintaining a discharge in the discharge space (13),

at least a portion of the discharge vessel (10) being provided with a luminescent layer (17) of a luminescent material,

10 at least a portion of the discharge vessel (10) facing away from the discharge space (13) being provided with a coating (3),
characterized in that

the coating (3) comprises a pigment which absorbs a part of the visible or UV light and/or the coating (3) comprises reflecting particles,

15 the coating (3) comprises a network obtainable through conversion of an organically modified silane by means of a sol-gel process,

said organically modified silane being selected from the group formed by compounds of the following structural formula: $R^I Si(OR^{II})_3$,

wherein R^I represents an organic group, preferably an alkyl group or an aryl group, and

20 wherein R^{II} represents an alkyl group.

2. The low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the R^I group comprises CH_3 or C_6H_5 .

25 3. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, characterized in that the R^{II} group comprises CH_3 or C_2H_5 .

4. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, characterized in that an average diameter d_p of the pigment is $d_p \leq 100$ nm.

5. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, characterized in that the thickness t_c of the coating (3) is $t_c \geq 1 \mu\text{m}$.
- 5 6. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2, characterized in that silica particles having a diameter $d \leq 50 \text{ nm}$ are incorporated in the network.
7. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
10 characterized in that the pigment causes a change in the color temperature of the low-pressure mercury vapor discharge lamp.
8. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
15 characterized in that the pigment is selected from the group formed by iron oxide, iron oxide doped with phosphorus, zinc-iron oxide, cobalt aluminate, neodymium oxide, bismuth vanadate, zirconium praseodymium silicate, and mixtures thereof.
9. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
20 characterized in that the pigment is selected from the group formed by anthraquinone, chromium phthalic yellow, perylene, quinacridone, Ni-isoindoline, quinacridone, Cu-phthalocyanine, Cu-phthalocyanine, dyaryl, chromium phthalic red, and mixtures thereof.
10. A low-pressure mercury vapor discharge lamp as claimed in claim 1 or 2,
25 characterized in that the reflecting particles are selected from the group formed by aluminum, silver, aluminum oxide, titanium oxide, and barium sulfate.
11. A low-pressure mercury vapor discharge lamp as claimed in claim 10, characterized in that the size of the particles is in a range from 1 to 400 nm, preferably approximately 250 nm.